



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/986,346

11/08/2001

John Lawrence Bowers

54135US011

8502

32692

7590

12/20/2010

3M INNOVATIVE PROPERTIES COMPANY

PO BOX 33427

ST. PAUL, MN 55133-3427

EXAMINER

RIVELL, JOHN A

ART UNIT

PAPER NUMBER

3753

NOTIFICATION DATE

DELIVERY MODE

12/20/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com

LegalDocketing@mmm.com

Office Action Summary	Application No. 09/986,346	Applicant(s) BOWERS, JOHN LAWRENCE	
	Examiner JOHN RIVELL	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/2/10 (RCE).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16,17,19-25 and 89-94 is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims pending in the application are 16,17,19-25,41,43,45-47,49-54,64,66,68-70,72-79,83-96,100-104,108-112,114-120,122-124 and 126-129.

Continuation of Disposition of Claims: Claims rejected are 41,43,45-47,49-54,64,66, 68-70,72-79,83-88,91,95,96,100-104,108-112,114-120,122-124 and 126-129.

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 2, 2010 has been entered.

By amendments filed in this application, claims 1-15, 18, 26-40, 42, 44, 48, 55-63, 65, 67, 71, 80-82, 97-99, 105-107, 113, 121 and 125 have been canceled. Claims 16, 17, 19-25, 41, 43, 45-47, 49-54, 64, 66, 68-70, 72-79, 83-96, 100-104, 108-112, 114-120, 122-124, and 126-129 are pending.

Applicant is again reminded that amendments filed in reissue applications are governed by 37 CFR §1.173. In particular, 37 CFR §1.173(d), in pertinent part requires "Any changes relative to the patent being reissued which are made to the specification, including the claims, upon filing, or by an amendment paper in the reissue application, must include the following markings:

- (1) The matter to be omitted by reissue must be enclosed in brackets; and
- (2) The matter to be added by reissue must be underlined..."

Thus claims 102 and 103, clearly an addition relative to the patent, are required to be underlined but are not underlined. For the purpose of this action only, these claims will be considered. Applicant is reminded that failure to follow appropriate

Art Unit: 3753

amendment procedures may result in those amendments deemed non-compliant thus unnecessarily prolonging prosecution.

Claim 112 is objected to because of the following informalities: Line 2 of the claim includes a repeated recitation of "of the". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 45 and 68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 45 is dependent on canceled claim 44 and claim 68 is dependent on canceled claim 67. As such each claim is indefinite. For the purposes below, each claim will be considered as if appropriately dependent.

New Matter

The following is a quotation of 35 U.S.C. §251:

Whenever any patent is, through error without any deceptive intention, deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent, the Commissioner shall, on the surrender of such patent and the payment of the fee required by law, reissue the patent for the invention disclosed in the original patent, and in accordance with a new and amended application, for the unexpired part of the term of the original patent. No new matter shall be introduced into the application for reissue. The Commissioner may issue several reissued patents for distinct and separate parts of the thing patented, upon demand of the applicant, and upon payment of the required fee for a reissue for each of such reissued patents. The provisions of this title relating to applications for patent shall be applicable to applications for reissue of a patent, except that application for reissue may be made and sworn to by the assignee of the entire interest if the application does not seek to enlarge the scope of the claims of the original patent. No reissued patent shall be granted enlarging the scope of the claims of the original patent unless applied for within two years from the grant of the original patent.

Claims 47, 49-54, 70, 72-79, 83-88, 95-96, 100-104, 108-112, 114-120, 122-124, and 126-129 are rejected under 35 U.S.C. 251 as being based upon new matter added to the patent for which reissue is sought. The added material which is not supported by the prior patent is as follows:

In claim 47, line 11 requires "only one stationary portion". Lines 14-16 requires "the (only one) stationary portion (to be) held in a stationary position in contact with a portion of the seal ridge". Lines 21-22 further require "the mounting of the flap (to cause) the (only one) stationary portion of the flap to be pressed towards the seal ridge". The problem arises in lines 22-23 which further require "at least a portion of the (only one) stationary portion (residing) in non alignment with the seal surface". Since "the (only one) stationary portion is held in a stationary position in contact with a portion of the seal ridge" (lines 14-15) how then does "a portion of the (only one) stationary portion" now reside in non alignment with the seal ridge? Moreover, recitation of "at least a portion" is broad language that implies that any portion, including the entirety of the "(only one) stationary portion (may) reside in non alignment with the seal surface" which embraces an embodiment of invention outside of the scope of the original patent and thus constitutes new matter.

In response to this position applicant argues:

"As shown particularly in Figure 5, there is a portion of the stationary portion (in the center) that is not aligned with the stationary portion (over the seal surfaces). Please note that the stationary portion is also disposed in the cross-sectioned drawing on the left and right sides of the flap. This non-alignment is further shown in Figure 4 where the profile block 16 causes the flap 7 to be recessed in non-alignment with the flap 7 above the sealing surface at the point where the profiled block presses down upon the flap. That is, there is a portion of the flap stationary portion that is

Art Unit: 3753

in non-alignment with the portion above the seal surface. The portion of the stationary portion that is held in position with seal surface 9a is held in a stationary position. The portion of the flap stationary portion pressed below the seal surface 9a is held in non- alignment with the portion resting on the seal surface. Thus, there is a portion of the stationary portion that resides in non-alignment with the portion contacting the seal surface.”

This argument is unpersuasive in that the applicants comments do not comport with the claim language that defines “the (only one) stationary portion”.

Applicants claim language defines “the (only one) stationary portion being held in a stationary position in contact with a portion of the seal ridge”. Thus as defined by the claim, any part of the valve flap that is not “in contact with a portion of the seal ridge” is not “the stationary portion” or a “portion of the stationary portion” because it is not in contact with the seal ridge. Thus a “portion of the stationary portion that resides in non alignment with the seal surface” cannot be “the stationary portion” or a portion of the stationary portion” as recited in the claim. Moreover, as embraced by the language “at least a portion” the scope of the claim embraces an embodiment of invention which includes having any part, including all, of the “stationary portion to (be) in non alignment with the seal surface” while at the same time, in the same embodiment, having the same “(only one) stationary portion (be held) in a stationary position in contact with the seal ridge”.

Further in claim 70, lines 15-18 recite “the transverse curvature being accomplished at least in part by having a member from the valve cover press against the flap to create sufficient curvature in the flap at a point when the member contacts the flap to cause at least a part of the stationary portion to reside in non alignment with the seal surface”. As disclosed in the Patent, the only “member” which extends “from

Art Unit: 3753

the cover (to) press against the flap to create sufficient curvature” is profiled block 15.

See the Patent at column 3, lines 25-29. At the location of profiled block 15 the flexible flap cannot be located in “non alignment with the seal surface” 9A. The only part of the flexible flap that resides in non alignment with the seal surface as a result of a member contacting the flap is at the location of profiled block 16. Block 15 and block 16 are at two distinct locations. It would appear that the claim is attempting to require the same element to perform different things within the structure of the valve device for which there is no support in the original Patent and is thus considered to be new matter.

In claim 86, lines 14-16 recite “a profiled block that engages the flexible flap... to press the flap towards the valve seat, wherein the flexible flap exhibits a curvature at least in a direction transverse to the longitudinal axis ...”. The phrase “at least” enlarges the scope of the claim to include curvature in directions not transverse to the longitudinal axis such as along askew angles from the longitudinal axis which is outside the scope of the original patent. As there is no basis for this limitation in the original patent this is considered to be new matter.

In response, applicant argues:

“...support for the objected language may be found in the specification at column 4, lines 2-7 and in Figures 4 and 5. At these locations, the specification describes a transverse curvature and a longitudinal curvature. The present specification therefore does support a valve flap that exhibits a curvature ‘at least in a direction transverse to the longitudinal axis.’ According to the explicit wording in the description, the flexible flap may be curved in both the transverse and longitudinal directions, or in ‘at least’ the transverse direction.”

This argument is unpersuasive. It is agreed that the language of “at least” embraces embodiments in which the curvature of the flap is “transverse to the

Art Unit: 3753

longitudinal axis” as well as along the longitudinal axis. However, applicants arguments appear to limit interpretation of “at least” to only those embodiments disclosed which does not take into consideration the broadest reasonable standard of claim interpretation. Given the broadest reasonable standard of claim interpretation, recitation of “at least” implies that the curvature may be along angles askew to the longitudinal axis which is outside the scope of the original patent and is thus considered new matter.

In claim 95, lines 17-20 recite “... the flexible flap comprises a fixed curvature in a direction transverse to the longitudinal axis, the fixed curvature resulting at least in part from a force being applied to the flap at a position proximate the root end and between the peripheral side edges, the applied force moving the flap upstream at the applied position and thus at least partially imparting the curvature”. The only element which exerts a force to move the flap “upstream” is block 16. While the block 16 may “at least in part” accentuate (as originally disclosed) this fixed curvature of the flap 7, the recitation “at least in part” encompasses embodiments of the invention in which the fixed transverse curvature results from other things such as by structure not disclosed in the Patent. Such embodiments, as they are not disclosed in the Patent, are considered new matter.

In claim 104, lines 17-21 recite “the flexible flap comprises a fixed curvature in a direction transverse to the longitudinal axis, the fixed curvature resulting at least in part from a force being applied to the flap at a position proximate the root end and between the peripheral side edges, the applied force moving the flap upstream at the applied position and thus at least partially imparting the curvature”. The only element which

Art Unit: 3753

exerts a force to move the flap “upstream” is block 16. While the block 16 may “at least in part” accentuate (as originally disclosed) this fixed curvature of the flap 7, the recitation “at least in part” encompasses embodiments of the invention in which the fixed transverse curvature results from other things such as by structure not disclosed in the Patent. Such embodiments, as they are not disclosed in the Patent, are considered new matter.

In claim 111, lines 20-24 recite “the flexible flap comprises a fixed curvature in a direction transverse to the longitudinal axis, the fixed curvature at least partially resulting from a force being applied to the flap at a position proximate the root end and between the peripheral side edges, the applied force moving the flap upstream at the applied position and thus at least partially imparting the curvature”. The only element which exerts a force to move the flap “upstream” is block 16. While the block 16 may “at least partially” accentuate (as originally disclosed) this fixed curvature of the flap 7, the recitation “at least partially” encompasses embodiments of the invention in which the fixed transverse curvature results from other things such as by structure not disclosed in the Patent. Such embodiments, as they are not disclosed in the Patent, are considered new matter.

In claim 120, lines 27-28 recite “the applied force moving the flap upstream at the exerted position and thus at least partially imparting the curvature. While the block 16 may “at least partially” accentuate (as originally disclosed) this fixed curvature of the flap 7, the recitation “at least partially” encompasses embodiments of the invention in which the fixed transverse curvature results from other things such as by structure not

Art Unit: 3753

disclosed in the Patent. Such embodiments, as they are not disclosed in the Patent, are considered new matter.

In claim 122, lines 19-21 recite “there being a force exerted on the flap in an upstream direction relative to the fluid flow through the valve to at least partially impart a curvature to the flap when in a closed position”. While the block 16 may “at least partially” accentuate (as originally disclosed) this fixed curvature of the flap 7, the recitation “at least partially” encompasses embodiments of the invention in which the fixed transverse curvature results from other things such as by structure not disclosed in the Patent. Such embodiments, as they are not disclosed in the Patent, are considered new matter. Additionally, lines 21-22 recite “which curvature extends at least transversely to the longitudinal dimension”. The inclusion of the phrase “at least” enlarges the scope of the claim to include curvature in directions not transverse to the longitudinal axis such as along askew angles from the longitudinal axis which is outside the scope of the original patent. As there is no basis for these limitations in the original patent this is considered to be new matter.

In response to the above concerning claims 95, 104, 111, 120 and 122, applicant argues:

“... there are additional features besides the block 16 that assists in maintaining the flap in a curved position. Please note that the non-alignment between the seal surfaces 9a, 9b, and 9c and the first force exerted upstream from block 16 causes a portion of the stationary portion of the flap to reside beneath the seal surfaces. This non-alignment and relative positioning between the upstream force location and the seal surfaces results in a fixed curvature being applied to the flap. This fixed curvature assists in creating the bias needed to allow for valve closure. Similar arguments may be applied to claims 104, 111, 120, and 122.”

These arguments, as they apply to claims 95, 104, 111 and 120, are unpersuasive. Applicants arguments appear to limit interpretation of “at least” to only those embodiments disclosed which does not take into consideration the broadest reasonable standard of claim interpretation. Given the broadest reasonable standard of claim interpretation, recitation of “at least” implies that the recited structural detail encompasses embodiments of the invention in which the claimed result can be achieved from other things such as by structure not disclosed in the Patent. Such embodiments, as they are not disclosed in the Patent, are considered new matter.

Concerning claim 122, as noted above concerning claim 86, it is agreed that the language of “at least” embraces embodiments in which the curvature of the flap is “transverse to the longitudinal axis” as well as along the longitudinal axis. However, applicants arguments appear to limit interpretation of “at least” to only those embodiments disclosed which does not take into consideration the broadest reasonable standard of claim interpretation. Given the broadest reasonable standard of claim interpretation, recitation of “at least” implies that the curvature may be along angles askew to the longitudinal axis which is outside the scope of the original patent and is thus considered new matter.

The remaining claims are included due to dependency.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3753

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 41, 43, 46, 64, 66, and 69 are rejected under 35 U.S.C. §102 (b) as being anticipated by cover (U. S. Pat. No. 2,105,183).

Regarding claim 41, the patent to Cover ('183) discloses a "filter face mask comprising: a mask body (11) adapted to fit over a nose and a mouth of a wearer (in the device of Cover ('183), although not explicitly illustrated in the figures, the mask 11 is considered to be positionable over the nose and mouth of the wearer since Pat. No. 2,105,183 is disclosed as being an improvement over a previous application, Serial No. 722,619 which matured into U.S. Pat. No. 2,112,270 of record which fully discloses that the mask 11 would be located over the nose and mouth of the wearer); and an exhalation valve (figures 3, 5 and 6) mounted to the mask body; the exhalation valve comprising only one flexible flap (read at half of the flap 23 forming one valve) and a valve seat (surface of plate 17 cooperating with the half of flap 23 forming the "only one flexible flap"); the flexible flap (the half of flap 23) being non-centrally mounted to the valve seat (at 17) at a stationary end (that end of the half of flap 23 at the pins 20 is "stationary" and is thus a "stationary end") in cantilever fashion (the valve element 23 is mounted by attaching the portion at holes 24 of the valve to the plate 17 by pins 20. As such this mounting arrangement forms a hinge area thus effectively forming two "cantilever" type valve elements either one of which is readable on the "flap" recited herein) for movement between open and closed positions; the flexible flap (the half of 23) having a longitudinal dimension (extending from the hinge area where the "flap" is fixed to a "free" extremity) and only one free end opposite the stationary end, the rests

Art Unit: 3753

upon the valve seat (17) when the valve is in a closed position; the flexible flap (the half of 23) also having a transverse curvature in a direction transverse to the flap's longitudinal dimension (as exemplified by the concavity exhibited in figure 2, extending along the plane of the hinge area. See page 1, right column, lines 28-31); the transverse curvature biasing the flexible flap to effect positioning and retention of the flexible flap in the closed position in the absence of an opening pressure differential across the flap for any orientation of the valve (as disclosed at page 2, lines 8-52 of Cover ('183)) wherein the flexible flap has maximum transverse curvature at the location where the flexible flap is mounted to the valve seat (at pins 20), and wherein the transverse curvature is imparted to the flexible flap by virtue of its mounting to the valve seat" by reason that the flap is pressed to the concave seat surface, as recited.

Regarding claim 43, in Cover ('183), the transverse curvature of the flexible flap (the half of flap 23) progressively decreases toward the free end of the flexible flap" from the maximum at the hinge area given that the surface 17 is concave. At locations approaching the rim of the concavity the curvature will decrease to eventually meet with the plate rim.

Regarding claim 46, in Cover ('183), "the exhalation valve is so located on the mask such that during normal head movements of a wearer, the free end of the (lower) flexible flap (of the two) is generally directed downwardly" as recited.

Regarding claim 64, the patent to Cover ('183) discloses a "filter face mask that comprises: (a) a mask body (11) adapted to fit over a nose and a mouth of a wearer (in

Art Unit: 3753

the device of Cover ('183), although not explicitly illustrated in the figures, the mask 11 is considered to be positionable over the nose and mouth of the wearer since Pat. No. 2,105,183 is disclosed as being an improvement over a previous application, Serial No. 722,619, which matured into U.S. Pat. No. 2,112,270 of record which fully discloses that the mask 11 would be located over the nose and mouth of the wearer); and (b) an exhalation valve (figures 3, 5, and 6) mounted to the mask body, the exhalation valve comprising only one flexible flap (either one of the valves formed at each half of the flap 23 of Cover ('183)) and a valve seat (surface of plate 17), the flexible flap (either one) being non-centrally mounted to the valve seat (at 17) at a root end (the "root end" of either flap being at that end of the "one flap" mounted by pins 20) and in cantilever fashion (the valve element 23 is mounted by attachment at holes 24 of the valve to the plate 17 by pins 20. As such this mounting arrangement forms a hinge area thus effectively forming two valve elements either one of which is read as the claimed "flap") such that it has a longitudinal dimension (extending from the hinge area to the "free" extremity), (either one of) the flexible flap also having only one free end (opposite the hinge area) that rests upon the valve seat (e.g. the mating surface of plate 17) when closed, the flexible flap exhibits a curvature in a direction transverse to the flexible flap's longitudinal dimension (as exemplified by the concavity exhibited in figure 2, extending along the plane of the hinge area. See page 2, lines 8-52 of Cover ('183)), the transverse curvature biasing the flexible flap to assist in closing the valve in the absence of an opening pressure differential across the flexible flap, under any orientation of the valve (as disclosed at page 2, lines 8-52 of Cover ('183)), wherein the flexible flap has a

Art Unit: 3753

maximum transverse curvature at the root end location where the flexible flap is mounted to the valve seat, and wherein the transverse curvature is imparted to the flexible flap (i.e. either one of valves) by virtue of its mounting to the valve seat (17)” as recited.

Regarding claim 66, in Cover ('183), the transverse curvature of the flexible flap decreases in the longitudinal dimension toward a free end of the flexible flap” from the maximum at the hinge area given that the surface 17 is concave. At locations approaching the rim of the concavity the curvature will decrease to eventually meet with the plate rim.

Regarding claim 69, in Cover ('183), “the exhalation valve is so located on the mask such that during normal head movements of a wearer, the free end of the (lower) flexible flap (of the two) is generally directed downward” as recited.

Response to Arguments

Regarding applicants remarks as they apply to the above, clearly applicants arguments are based on an interpretation of the reference of Cover ('183) not commensurate with the Examiners interpretation of the claimed “only one flexible flap”. Whereas applicants arguments reflect interpretation of the single element 23 of Cover ('183) forming two valves, the Examiners interpretation is based on either of the “valves” formed by the single element 23 as being readable on the claimed “only one flexible flap”. As such each valve includes a “stationary (root) end that in fact is mounted to the

Art Unit: 3753

seat by pins 20. Each valve in fact includes only one "free end" moveable toward and away from the seat surface.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 45 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cover (U. S. Pat. No. 2,105,183) in view of Baldwin (U. S. Pat. No. 5,295,478).

The patent to Cover ('183) discloses all the claimed features with the exception of having "the flap mounted to the valve seat by being pressed towards the seat by a member disposed on a cover".

The patent to Baldwin discloses that it is known in the art to employ a two piece housing at base portion 10 and housing 13, clamped together to form the valve body and simultaneously clamp a valve element 12 therebetween for the purpose of mounting the valve element and assembling the valve body in a single process step.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Cover ('183) a two piece housing for the purpose of clamping the valve element of Cover ('183) in its assembled location while at the same time assembling the valve body in a single process step as recognized by Baldwin.

Claims 16, 17, 19-25, 89 and 90-94 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN RIVELL whose telephone number is (571) 272-4918. The examiner can normally be reached on Mon.-Fri. from 6:00am-2:30pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hepperle can be reached on (571) 272-4913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Rivell
/John Rivell/
Primary Examiner
Art Unit 3753